COON CREEK WARREN WITH VERTICALS PONY TRUSS
Spanning Coon Creek
Hulah Vicinity
Osage County
Oklahoma

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Submitted to:
Oklahoma State Historic Preservation Office
800 Nazih Zuhdi Drive
Oklahoma City, Oklahoma 73105

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Tanya McDougall, Photographer, October 2011

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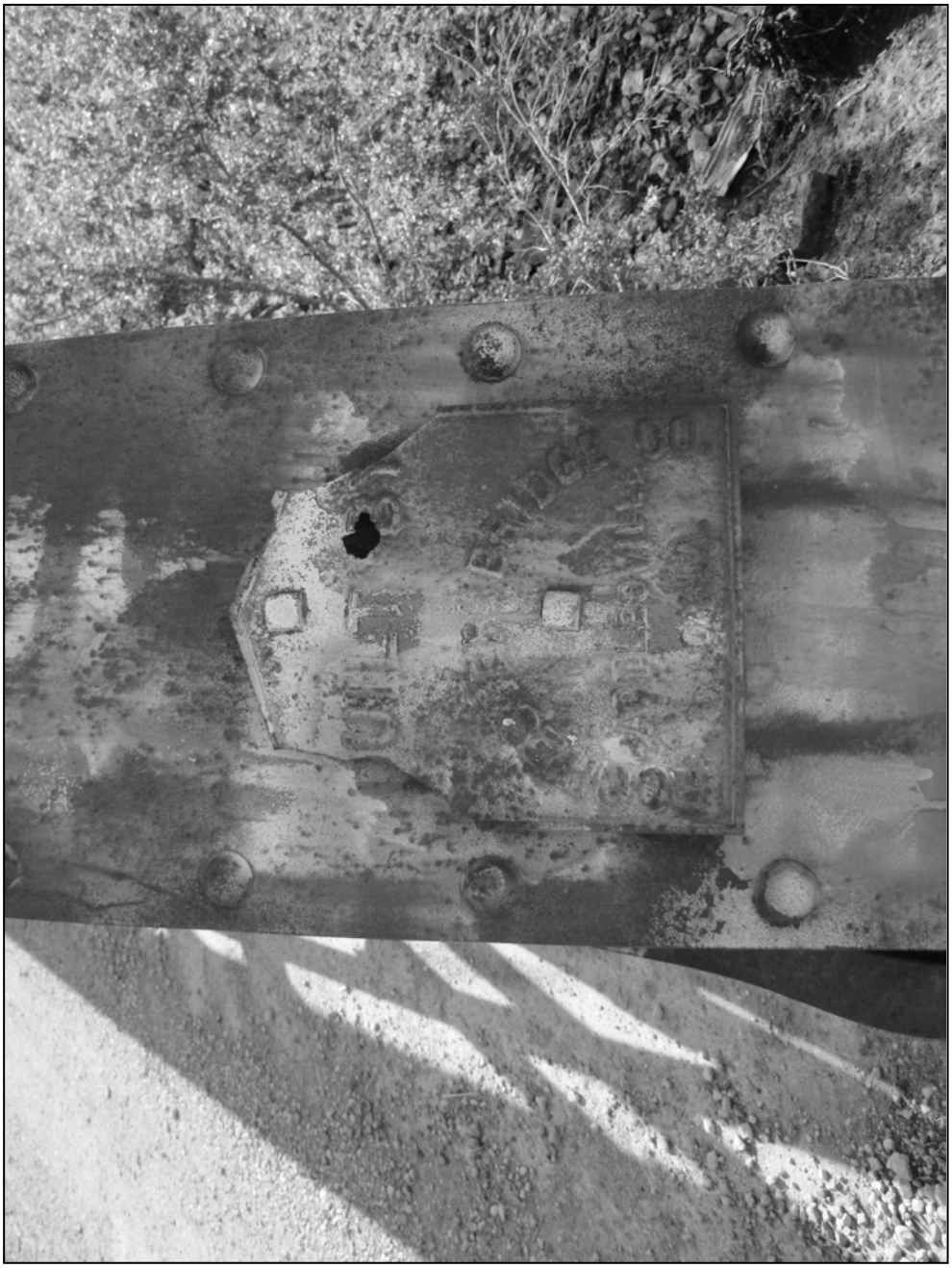

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COON CREEK WARREN WITH VERTICALS PONY TRUSS

Location: Spanning Coon Creek, at County Road 3011, in the Hulah vicinity, Osage County, Oklahoma.
UTM: 14/E0764916/N4088522
Quad: Bowring

Present Owner: Osage County, Oklahoma
ODOT Structure Number 57D3910E0070004

Present Use: Vehicular Bridge

Significance: The Coon Creek Warren with Verticals Pony Truss Bridge was constructed in 1919–1920, by the Rochester Bridge Company of Rochester, Indiana. The structure is a good example of its type and is a representative example of the work done by the bridge company's regional office located in Bartlesville, Oklahoma. Furthermore, the structure demonstrates a pattern of development associated with the oil industry in Osage County during the 1910s–1920s.

Project Information: Historic American Engineering Record (HAER) Level II equivalent documentation was performed in October 2011. Tanya McDougall, Architectural Historian, conducted the on-site recordation and compiled the historical information. During the on-site recordation, photographs following National Park Service (NPS) standards for digital photography were taken of the structure, and observations on existing conditions were noted. The HAER recordation serves as mitigation for the demolition of this structure.

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PART I. HISTORICAL INFORMATION

A. Physical History:

1. **Date of Construction:** 1919–1920

2. **Architect/Engineer:** Not Known

3. **Builder/Contractor/Supplier:** Rochester Bridge Company

4. **Original Plans:** No original plans were found for this structure.

5. **Alterations and Additions:** The structure remains mostly unaltered except for missing railing on the northwest corner and replacement railing on the southeast corner of the truss.

B. Historical Context:

1. Introduction

Osage County, located in northeast Oklahoma, was named for the Osage Native American Tribe. The tribe, originally from Missouri, expanded its range in the 1760s to the area now known as Osage County. In 1839, the tribe was removed from its homelands and relocated to a reservation in Kansas. The Osage returned to the Oklahoma Territory in 1872 under the Cherokee Reconstruction Treaty of 1866 and established its tribal seat at Pawhuska. The area occupied by the Osage was designated a county in 1907, when Oklahoma was admitted as a state, and Pawhuska was designated the county seat (May 2011).

With approximately 2,303 square miles, Osage County is Oklahoma's largest county in terms of size. Even so, an extensive agricultural industry never developed due to the land being inadequate for cultivation. However, the abundant natural grasslands had attracted cattlemen from throughout the southwest to the area since before statehood. With the Osage tribe having claim over the land, cattlemen had to negotiate grass leases with the tribal leasing committee. In 1898, the Osage were leasing 431,640 acres of land, which increased to 727,260 by 1901 (May 2011). Extensive grass leasing ceased after statehood and allotment in 1907.[1]

After statehood, the cattle industry continued to contribute to the county's economic stability, but the discovery of oil defined the county's growth in the twentieth century. In 1897, the first commercial producing oil well was drilled east of Osage County at what is now Bartlesville in Washington County (Pawhuska Journal Capital 1996). The well tapped into the Bartlesville-Dewey Field, one of Oklahoma's major oil fields,

[1] In June 1906, the Allotment Bill passed Congress and provided for the distribution of Osage land to all tribal members registered on the roll as of January 1, 1907. The land was distributed to tribal members in 1907, by allowing each member to select 160-acres in each of three selection drawings (*Muskogee Times-Democrat* [*MTD*] 24 February 1906). The allottee was granted the surface rights, which allowed him or her to sell or rent the land, but the subsurface rights were held in trust by the federal government for the Osage National Council.

which stretches into the northeast part of Osage County. Seven months later, the first producing oil well in Osage County was drilled and produced 20 barrels a day. Although not considered a gusher, the discovery sparked an interest in the county's petroleum resources and initiated the county's first oil boom, which lasted through the 1920s (Boyd 2002:98; Pawhuska Journal Capital 1996:11).

As development of the oil industry continued to progress, it became more apparent that the available transportation routes in the area were not adequate. Oil companies operating in Osage County needed access to railroads in order to ship their product. Thus, in 1899, the Atchison Topeka and Santa Fe Railroad was persuaded to construct a line over the Caney River through Bartlesville to the refineries in Kansas City. With a reasonable means to transport their crude oil, a 2-inch pipeline was constructed to the depot in Bartlesville, and in May 1900, the first shipment of oil was sent to Kansas (Wallis 1988:87).

During the early 1900s, oil production in Osage County quickly gained momentum. Between 1900 and 1906, oil production increased from 6,212 to five million barrels annually (Wallis 1988:87-89). The success of the oil industry continued over the following decades and peaked between 1913 and 1920 (Boyd 2002:98). In that time the population increased to over 20,000, boom towns developed, and hundreds of wells were drilled (Osage County Clerk [OCC] 1918:County Commissioner Minutes [CCM] 2:434). It was during this period of prosperity that the bridge over Coon Creek was constructed.

2. Development of the Coon Creek Warren with Verticals Pony Truss Bridge

The Coon Creek Warren with Verticals Pony Truss Bridge was constructed in 1919–1920. The bridge is located south of Hulah in northwest Osage County and carries County Road (CR) 3011. A 1909 topographic map of the area reveals the area was undeveloped and depicts CR 3011 as a light duty road running north and south over Coon Creek (U.S. Geological Survey [USGS] 1909). The road was part of a system of light duty and unimproved roads that was likely established for oil companies and local farmers to access more populated centers located to the east, including the towns of Bartlesville, Copan, and Dewey (USGS 1913).

In 1919, during the peak of the oil industry, the Stanolind Pipeline Company pumping station was constructed 1 mile west of Hulah and approximately 2.5 miles northwest of the Coon Creek Bridge (Glenn 2007:4). With few other transportation outlets in the area, it is likely that the establishment of the pumping station spurred the need to improve the crossing at Coon Creek. On November 24, 1919, the Osage County Board of County Commissioners unanimously approved the construction of six bridges, including the bridge over Coon Creek. The contract for the construction of the Coon Creek Bridge superstructure was awarded to the Rochester Bridge Company for the amount of $4,700 (OCC 1919:CCM 2:598). Construction of the substructure was awarded to T. E. Smith for the amounts of $12.50 per cubic yard of stonework and $1.50 per cubic yard of excavating (OCC 1919:CCM 2:598). Construction of the bridge was completed in 1920 (OCC 1920:CCM 3:50).

The County Commissioner records indicate that bidding for the Coon Creek Bridge was only let to the Rochester Bridge Company. The reason for this is unknown, except for the fact that by 1919 the Rochester Bridge Company was a well established bridge builder in Osage County.[2] Furthermore, it appears that the Rochester Bridge Company, which was headquartered in Rochester, Indiana, had a regional office located in Bartlesville, Oklahoma, as is evidenced by the nameplate on the bridge that reads:

BUILT BY
ROCHESTER BRIDGE CO.
BARTLESVILLE
OKLA.

Steel for the Coon Creek Bridge was purchased from the Bethlehem Steel Company, the name of which is stamped on the bridge's top chord. The structure was constructed as a Warren Pony Truss, which was a standard type used by bridge companies throughout Oklahoma and the U.S. The design of the Warren Pony Truss, which consists of a series of elongated W's, was favored by bridge companies for its quick installation. This bridge type proved ideal for secondary routes and moderately traveled roads (King 1993). Today, the Coon Creek Bridge continues to function as a vehicular bridge, and represents a period of growth and great prosperity spurred on by the local oil industry during the early part of the 1900s.

PART II. STRUCTURAL/DESIGN INFORMATION

A. General Description:

The Coon Creek Warren with Verticals Pony Truss is a two-lane vehicular bridge facilitating CR 3011. The structure runs northeast and southwest to accommodate the south-flowing drainage of Coon Creek.

The structure consists of one span with a concrete deck supported by stone abutments. The total length of the structure is 70 feet (ft) and the total width is 16 ft. The truss consists of five panels, inclined end posts, and vertical and diagonal members. The end posts and top chord consist of two channels with V-lacing, a common means of holding larger beams together. The eight diagonal and four vertical members consist of angels connected by stay plates. The entire structure is riveted together, and gusset plates are located at each connection. The structure has remained mostly intact with the exception of missing railing on the northeast corner and replacement metal pipe railing on the southwest corner. The original railing consisted of two channels running parallel along the truss.

The structure has a 16-ft-wide concrete deck, seven metal stringers, and four metal floor beams. The entire structure is supported by stone abutments that measure approximately 6 ft in height and 16 ft in width.

[2] Early examples of bridges constructed by the Rochester Bridge Company in Osage County are the bridge over Hominy Creek near Skiatook constructed in 1913 and the Pratt Truss Bridge over Bird Creek near Avant constructed in 1914 (Saunders 1985).

1. **Character:** The Warren Truss design, first developed in 1848 by James Warren and Willoughby Monzoni, is considered one of the most common truss types. During the early twentieth century, the Warren Truss was found to be ideal for secondary and minimally traveled roads. The coursed stone abutments demonstrate a rustic aesthetic common during the 1920s.

2. **Condition of Fabric:** The Coon Creek Warren with Verticals Pony Truss Bridge shows evidence of deterioration due to age and exposure to the elements. Noted deterioration includes a vertical crack on the southeast stone abutment, and an L-shaped crack on the northwest stone abutment.

B. Site Information: The Coon Creek Warren with Verticals Pony Truss Bridge is located on a secondary road in a rural area. The landscape immediately surrounding the bridge is covered by native vegetation that follows the course of the creek. Beyond the native vegetation is open clearing used for grazing. No other structures are located near the bridge.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

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LOCATION MAP

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OSAGE COUNTY, OKLAHOMA
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